



BARCOPROJECTION

SCENERGIX

**R9840870 - R9840880
R9840890 - R9841500
R9841510**

OWNERS MANUAL
ScenergiX for SLM and ELM

Barco nv Events

Noordlaan 5, B-8520 Kuurne

Phone: +32 56.36.89.70

Fax: +32 56.36.88.24

E-mail: events@barco.com

Visit us at the web: www.barco.com

1. SCENERGIX



ScenergiX is only available as an option.

Overview

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1.1 Order information

Order numbers

R9840870

1.2 Order information

Order numbers

SLM G5	R9840880
SLM R6	R9840890
SLM G8/G10	R9841500
SLM R8/R10	R9841510

1.3 Introduction

When available ?

ScenergiX is only available as an option, some menu items will be grayed out when this option is not installed.

Why ScenergiX ?

When working in a multichannel setup the Barco ELM R18 and its Soft Edge possibilities enable an image blending that gives the appearance of a single view, thus achieving realistic immersion for the majority of wide screen applications.

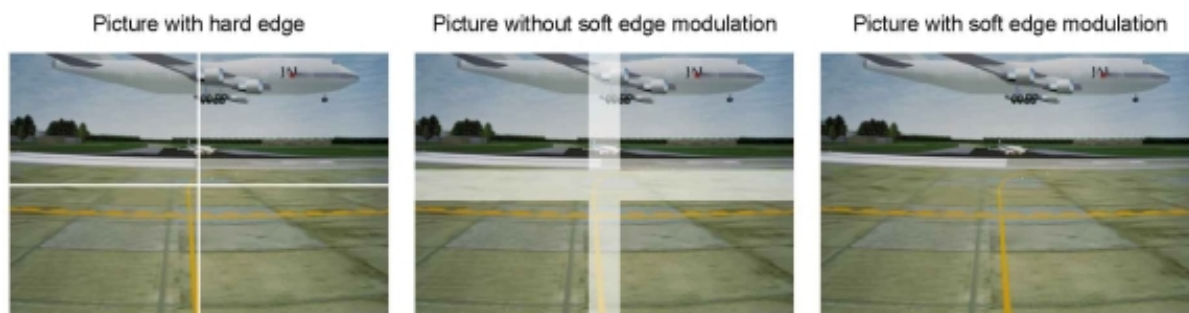


Image 1-1
Why Soft Edge?

What is the Basic Principal of ScenergiX ?

The principle of edge blending is achieved by linear modulation of the light output in the overlap zone so that the light output in that zone equals the light output of the rest of the image.

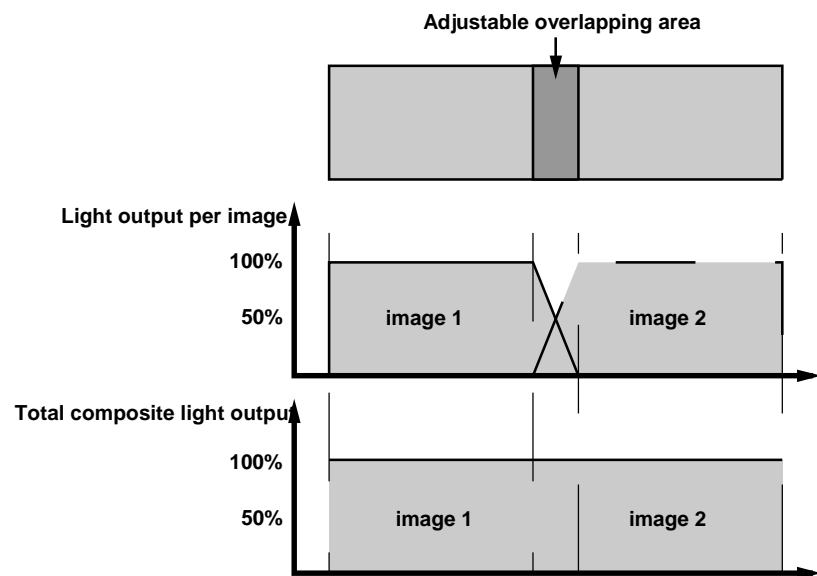


Image 1-2
ScenergiX Basic Principle

1.4 Preparations

ScenergiX Preparations

To ensure proper ScenergiX adjustment, be sure that the following adjustments are done perfectly on all projectors:

- Convergence (Electronic Convergence).
- Geometry
- Color Matching (Color Temperature, Input Balance, Gamma)

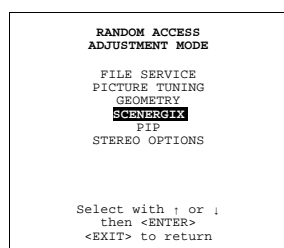
1.5 Scenergix

How to activate Scenergix?

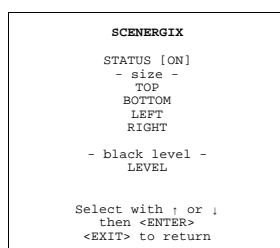
1. Push the cursor key \uparrow or \downarrow to highlight *Scenergix*. (menu 1-1)
2. Press **ENTER** to select.
3. Push the cursor key \uparrow or \downarrow to highlight *Status*. (menu 1-2)
4. Press **ENTER** to toggle between ON and OFF.

ON scenergix is active

OFF scenergix is not active



Menu 1-1



Menu 1-2

1.6 ScenergiX overlap zone (horizontal scenergiX)

Definitions

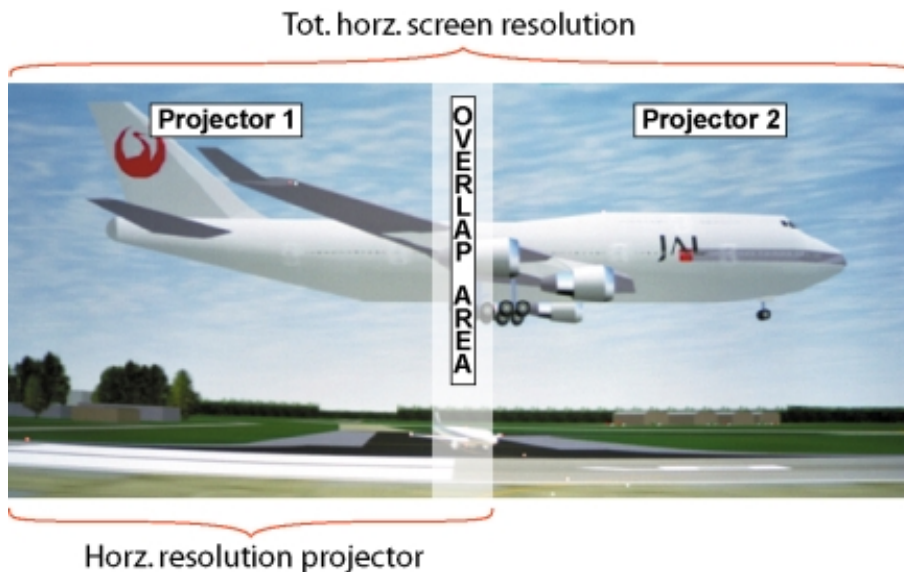


Image 1-3
ScenergiX set up

Overlap : number of pixels that overlap

Horizontal resolution of 1 projector : 1024 for Graphics versions, 1280 for Reality versions.

Total horizontal screen resolution : [(horizontal resolution of 1 projector) x 2] minus overlap.

Horizontal Resolution source : number of active pixels of the source.

Adjustment of Active pixels (Pact) of the first projector

1. Go to File → Edit menu of first projector.
2. Enter value for horizontal → active (= Pact) as follow :

$$\text{Pact} = [(\text{Horz. resolution of 1 projector}) / (\text{Total horz. screen resolution})] \times (\text{horz. resolution source})$$
3. Horizontal → start (= Pstart) remains the same.

Adjustment of Active pixels (Pact) of second projector

1. Go to File → Edit menu of second projector.
2. Enter value for horizontal → active (= Pact) as follow :

$$\text{Pact} = [(\text{Horz. resolution of 1 projector}) / (\text{Total horz. screen resolution})] \times (\text{horz. resolution source})$$
3. Horizontal → start (= Pstart) = original start + [(Horz. resolution source) minus (newly calculated Pact)]

Example

Horizontal resolution source : 1600 pixels

horizontal resolution projector 1 & 2 : 1024 pixels

Overlap : 100 pixels

Total horizontal screen size in pixels : 1948 pixels

Pact projector 1 = $[(1024 / 1948)] \times 1600 = 841$ pixels

Pact projector 2 = $[(1024 / 1948)] \times 1600 = 841$ pixels

Pstart projector 2 = Pstart projector 1 + (1600 – 841)

1.7 ScenergiX overlap zone (vertical scenergiX)

Definitions

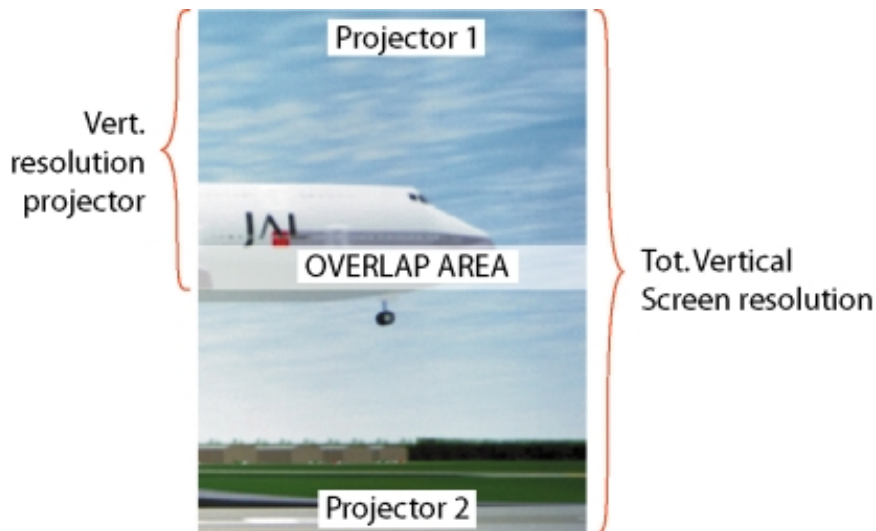


Image 1-4
ScenergiX overlap zone vertical

Overlap : number of pixels that overlap

Vertical resolution of 1 projector : 768 for Graphics versions, 1024 for Reality versions.

Total vertical screen resolution : [(Vertical resolution of 1 projector) x 2] minus (overlap)

Vertical Resolution source : number of active lines of the source

Adjustment of Active lines (Lact) of the first projector

1. Go to File → Edit menu of first projector.
2. Enter value for vertical → act (= Lact) as follow :
$$\text{Lact} = [(\text{vert. resolution of 1 projector}) / (\text{Total vert. screen resolution})] \times (\text{Verti. resolution source})$$
3. Vertical → start (= Lstart) remains the same.

Adjustment of Active lines (Lact) of second projector

1. Go to File → Edit menu of second projector.
2. Enter value for vertical → act (= Lact) as follow :
$$\text{Lact} = [(\text{Vert. resolution of 1 projector}) / (\text{Total vert. screen resolution})] \times (\text{vert. resolution source})$$
3. Vertical → start (= Lstart) = original start + [(Vert. resolution source) minus (newly calculated Lact)]

Example

Vertical resolution source : 1200 lines

Vertical resolution 1projector : 768 lines

Overlap : 50 lines

Total vertical screen size : 1486 lines

Lact projector 1 = $(768 / 1486) \times 1200 = 620$ lines

Lact projector 2 = $(768 / 1486) \times 1200 = 620$ lines

Lstart projector 2 = Lstart projector 1 + (1200 – 620)

1.8 ScenergiX size adjustment

What can be done with the ScenergiX size menu?

Within this menu the width of the blending zone is set up.

How to adjust the size?

Only accessible when the status is in the ON position.

1. Push the cursor key ↑ or ↓ to highlight one of the four size adjustments, Top, Bottom, Left or Right. (menu 1-3)
2. Press **ENTER** to select.

A pattern with the different areas will be displayed. (image 1-5)

3. Use the cursor keys to move the border of the overlap area to the desired position (value between 0 and 255). Set first the width of the first projector and repeat for the second one. (image 1-6, image 1-7)

```

SCENERGIX

STATUS [ON]
- size -
  TOP
  BOTTOM
  LEFT
  RIGHT
- black level -
  LEVEL

Select with ; or |
then <ENTER>
<EXIT> to return

```

Menu 1-3

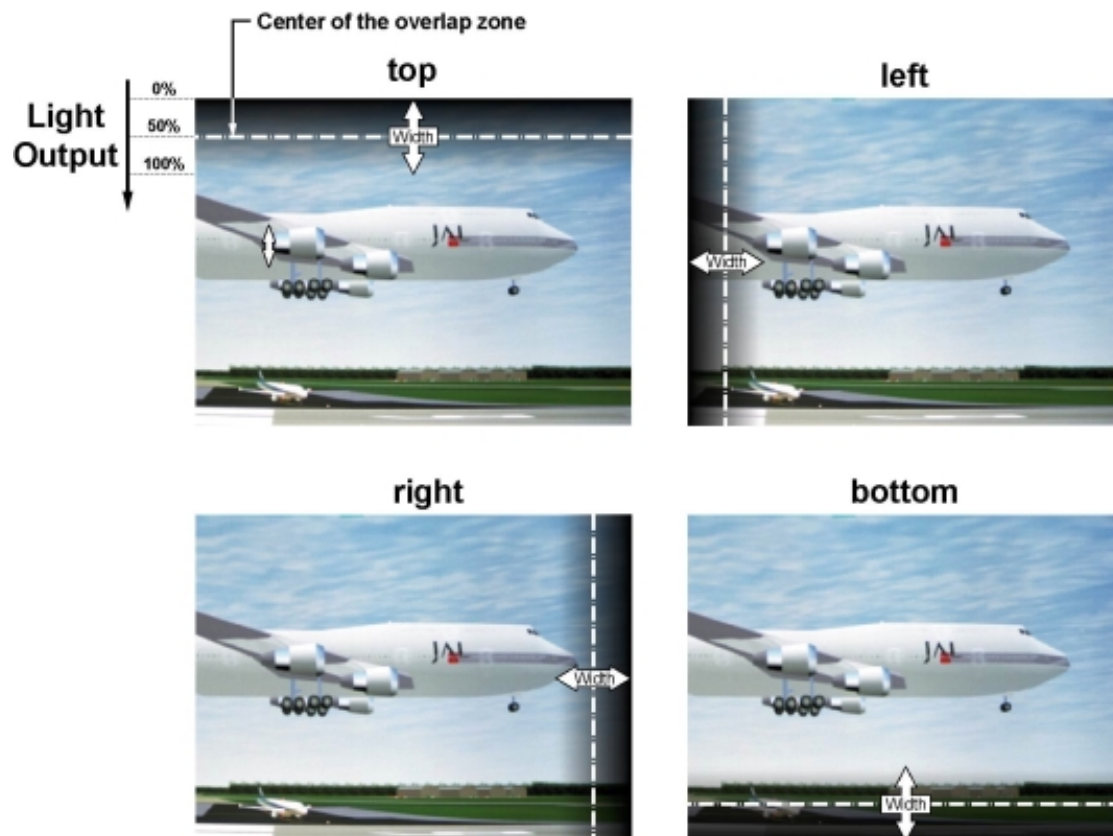


Image 1-5
Width selections

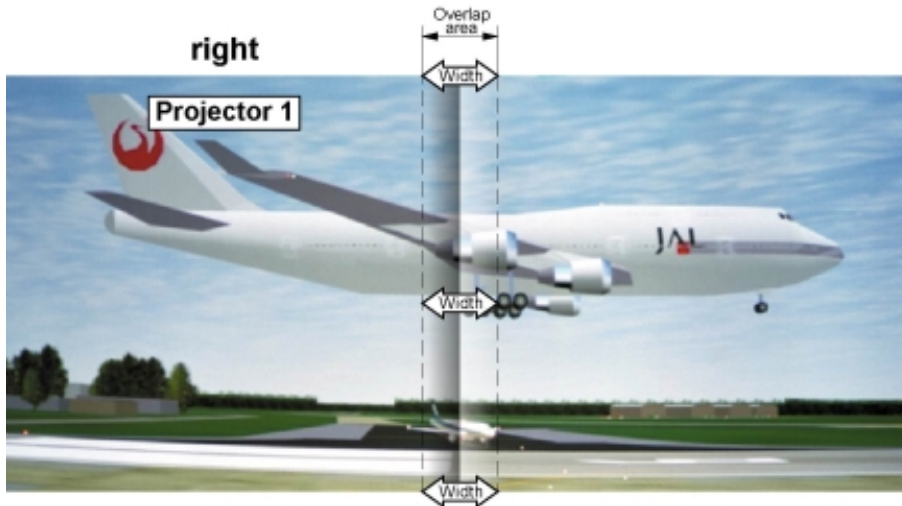


Image 1-6
Width set up for projector 1

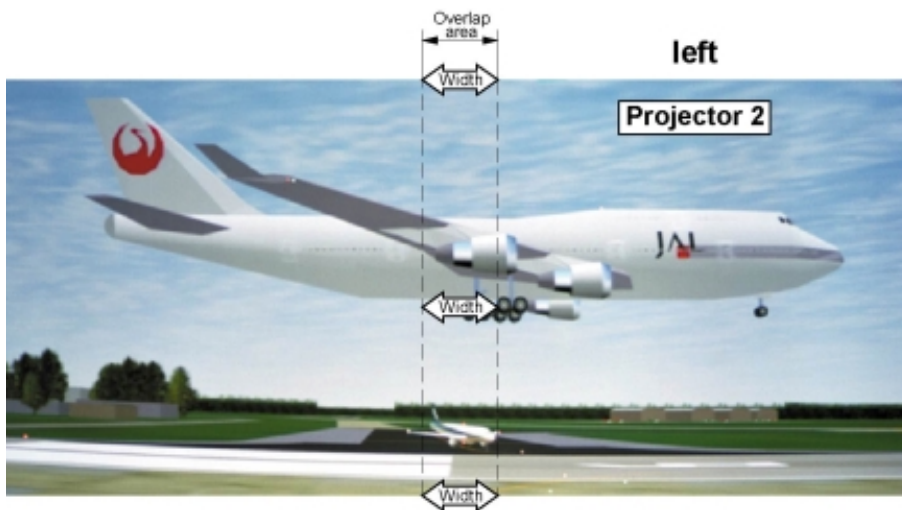


Image 1-7
Width set up for projector 2

1.9 Adjusting the black level of the images

Why

For dark images, the overlap zone will be brighter than the rest of the images. Therefore we can rise the black level of the remaining image (excluding the overlap zone).

How to adjust?

1. Push the cursor key ↑ or ↓ to highlight *Level*. (menu 1-4)
2. Press **ENTER** to activate.
3. Adjust the black level of area A until the black level of area A, B and C are equal. (image 1-8)

```

SCENERGIX

STATUS [ON]
- size -
  TOP
  BOTTOM
  LEFT
  RIGHT
- black level -
  LEVEL

Select with ; or |
then <ENTER>
<EXIT> to return

```

Menu 1-4

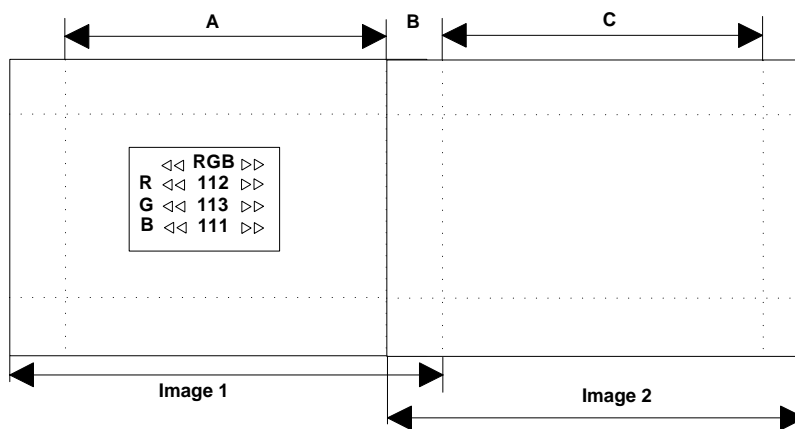


Image 1-8
Black level adjustment